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The Importance of a Precise Definition, Comprehensive Model, and Critical Discussion of
Successful Aging at Work

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Abstract

It is crucial to advance understanding of the concept of successful aging at work to guide rigorous future research and effective practice. Drawing on the gerontology and lifespan developmental literatures, I recently proposed a definition and theoretical framework of successful aging at work that revolve around employees increasingly deviating from average developmental trajectories across the working lifespan (Zacher, 2015). Based on sustainability, person-job fit, and proactivity theories, Kooij (2015) suggested an alternative perspective that emphasizes the active role of employees for successful aging at work. In this article, I compare the two approaches and attempt a partial integration. I highlight the importance of a precise definition, comprehensive model, and critical discussion of successful aging at work.

Furthermore, I suggest that person-environment fit variables other than person-job fit (e.g., person-organization fit) and adapting to person-environment misfit may also contribute to successful aging at work. Finally, I argue that proactive behaviors must have age-differential effects on work outcomes to be considered personal resources for successful aging at work.

Keywords: successful aging, lifespan, proactivity, person-environment fit

The Importance of a Precise Definition, Comprehensive Model, and Critical Discussion of
Successful Aging at Work

Old age is like a plane flying through a storm. Once you're aboard, there's nothing you can do.

(Golda Meir)

Aging is not lost youth but a new stage of opportunity and strength.

(Betty Friedan)

Researchers started using the expression “successful aging at work” more than 20 years ago, without however clearly explaining its meaning, assumptions, and underlying processes (Abraham & Hansson, 1995; Hansson, DeKoekkoek, Neece, & Patterson, 1997). In the inaugural issue of *Work, Aging and Retirement*, I proposed a definition and theoretical framework of successful aging at work to advance understanding of the concept (Zacher, 2015). Based on a long and theoretically rich tradition of research on successful aging in the gerontology and lifespan developmental literatures (e.g., Baltes & Baltes, 1990; Havighurst, 1961; Rowe & Kahn, 1987; Ryff, 1982; Schulz & Heckhausen, 1996; Williams & Loeb, 1956), I argued that employees are aging successfully at work if they deviate in increasingly positive ways from average developmental trajectories of favorable subjective and objective work outcomes across the working lifespan. For the current issue of this journal, Kooij (2015) outlined an alternative perspective on successful aging at work that focuses on proactive employee behaviors, the fit between employees and their jobs, and the effective management of personal resources. The goal of Kooij’s (2015) article was to emphasize the importance of an active role of employees for successful aging at work and, therefore, it aimed to integrate different proactivity concepts from the lifespan and organizational psychology literatures.

Kooij (2015) summarized my conceptualization of successful aging at work, but it was not the goal of the article to compare or link its approach to my definition and theoretical framework. However, theoretical integration is crucial to guide rigorous future research and effective practice in this area. The first goal of the current article, therefore, is to describe similarities between the two approaches and to attempt a partial integration. Second, I critically analyze Kooij's (2015) perspective and highlight the importance of a precise definition, comprehensive model, and critical discussion of successful aging at work. Finally, I argue that proactive behaviors must have age-differential effects on work outcomes to be considered personal resources for successful aging at work.

Theoretical Perspectives on Successful Aging at Work

Table 1 provides an overview of the definitions, theoretical backgrounds, and central elements of Kooij's (2015) and my (Zacher, 2015) perspectives on successful aging at work.

Kooij's (2015) Definition and Theoretical Perspective

Kooij (2015) proposed a perspective on successful aging at work that emphasizes the active role of employees based on sustainability, person-job fit, and proactivity theories. In the article, the expression "successful aging at work" and the new term "sustainable aging at work" are used interchangeably, and they are defined as employees' maintenance of their health, motivation, and work ability, "now and in the future" (p. 1)¹. A central predictor of successful aging at work according to Kooij's (2015) perspective is a constant person-job fit between employees and their work environment over time. The engagement in self-initiated, active, and change-oriented behaviors, in particular proactive person-job fit and proactive career behaviors (cf. Parker & Collins, 2010), is assumed to positively predict a continuous person-job fit.

¹ Page numbers refer to the online published version of Kooij (2015).

Furthermore, Kooij (2015) argued that the effect of a continuous person-job fit on maintenance of health, motivation, and work ability is mediated by employees' effective management of their personal resources (i.e., preservation and regeneration of resources). Figure 1 depicts the core elements of Kooij's (2015) perspective on sustainable and successful aging at work.

Zacher's (2015) Definition and Theoretical Framework

My conceptualization of successful aging at work is based on four central themes in the gerontology and lifespan developmental literatures on successful aging (Zacher, 2015; Table 1). Specifically, I argued that research on successful aging at work should focus on both subjective and objective work outcomes valued by employees and organizations (*criteria for successful aging at work*), investigate age-related mediators that, by themselves and in combination, explain associations between age and work outcomes (*explanatory mechanisms*), examine how person and/or contextual factors interact with employee age in predicting mediators and work outcomes, such that they explain more variance among older compared to young employees (*facilitating and constraining factors*), and develop and test assumptions about intraindividual age-related changes in criteria over time and across the working life span (*temporal patterns*).

My definition of successful aging at work requires a comparison of an employee's unique intraindividual age-related trajectory of a work outcome over time and across his or her working lifespan with the average (or normative) trajectory of the same work outcome ("usual aging"; Rowe & Kahn, 1987). It is important to note that my definition does not entail a comparison of an employee's intraindividual trajectory with *other* employees' trajectories, but a comparison with the *average* trajectory of a work outcome. Employees are aging successfully at work if their trajectories deviate in increasingly positively ways from the average trajectory of a favorable work outcome, whereas employees are aging unsuccessfully if their trajectories deviate in

increasingly negative ways from the average trajectory (Zacher, 2015). The differences in trajectories that emerge over time between employees aging successfully and those aging less successfully can potentially be explained by facilitating and constraining person and/or contextual factors (moderators) and their interactions.

Panels A, B, and C in Figure 2 illustrate my definition of successful aging at work (see Zacher, 2015, for details and examples). In Figure 2A, the average age-related trajectory (usual aging) involves maintenance of a work outcome (e.g., task performance) across the working lifespan. Age-related growth in the work outcome constitutes successful aging at work, whereas age-related decline constitutes unsuccessful aging at work. In Figure 2B, moderate levels of age-related growth in a work outcome (e.g., job satisfaction) represent usual aging, high levels of growth constitute successful aging at work, and maintenance constitutes unsuccessful aging at work. Finally, in Figure 2C, moderate levels of age-related decline in a work outcome (e.g., work ability) represent usual aging, maintenance constitutes successful aging at work, and steep age-related decline constitutes unsuccessful aging at work. In contrast, according to my definition, Panels D and E in Figure 2 do neither illustrate successful nor unsuccessful aging at work, because they do not involve an Age \times Person/Contextual Moderator interaction (or a pattern of differential preservation; Salthouse, 2006), and Panel F does not illustrate successful and unsuccessful aging at work because person and/or contextual moderators cannot explain variance in the work outcome among older employees, only among young employees.

My theoretical framework of successful aging at work is depicted in Figure 3. The framework suggests that person and contextual moderators (e.g., use of action regulation strategies, work characteristics) influence the direction and strength of direct associations of age with person and contextual mediators (e.g., knowledge, family-to-work conflict), and indirect

associations of age with important subjective and objective work outcomes (e.g., motivation, job performance, occupational health and well-being) through the mediators (Zacher, 2015).

Similarities between the Perspectives and an Attempt of Partial Integration

There are four broad conceptual similarities between Kooij's (2015) perspective and my (Zacher, 2015) definition and framework. These similarities concern the general assumption of an active role of employees, the proposition that interactions between age-related person and contextual factors (including dynamic person-environment fit) influence work outcomes, a focus on important work outcomes as criteria, and a developmental perspective on successful aging at work.

The active role of employees.

“In the 1990s, life span psychologists developed three influential models that focus on the action regulation strategies people can use to achieve successful aging, particularly when their resources dwindle with age. The common idea of these models is that people can have an active role in shaping their developmental trajectories” (Zacher, 2015, p. 7).

“There is much support in lifespan psychology literature that older people take an active role in shaping their environment... This literature shows that people exercise agency in dealing with the biological, psychological, and social changes that are part of the aging process” (Kooij, 2015, p. 3).

I agree with Kooij (2015) that proactive behaviors may, to some extent, contribute to successful aging at work. The person mediators and moderators in my theoretical framework (Figure 3) encompass not only personal resources such as abilities, knowledge, and other characteristics (e.g., traits, orientations; cf. Zaniboni, 2015), but also action regulation strategies (skills) such as selection, optimization, and compensation behaviors (Freund & Baltes, 2000), as

well as proactive behaviors such as proactive person-environment fit and proactive career behaviors (Parker & Collins, 2010). Both action regulation strategies and proactive behaviors involve active, self-initiated, goal-directed, and change-oriented behaviors that focus on either changing people's self or their environment (Bindl & Parker, 2011; Grant & Ashford, 2008; Zacher & Frese, in press). Kooij (2015) conceptualized proactive person-job fit and proactive career behaviors as key predictors of a continuous (current and future) person-job fit (Figure 1). The role of age in these relationships remained rather vague as the time frame of "current and future fit" was not specified. While Kooij (2015) suggested that "continuously improving person-job fit is particularly important for successful aging" (p. 2), the article did not state explicitly whether age-differential effects of proactive behaviors on person-job fit are required for this perspective on successful aging at work, or whether this perspective allows for influences of proactive behaviors on person-job fit independent of employees' age.

According to my definition and theoretical framework, proactive strategies and behaviors have to interact with age in predicting mediators and/or work outcomes, and explain more variance among older compared to young employees to be considered personal resources for successful aging at work (Zacher, 2015). Empirical evidence for the importance of proactive strategies and behaviors for successful aging at work is so far very limited. An exception is a study by Weigl, Müller, Hornung, Zacher, and Angerer (2013), which showed that the use of selection, optimization, and compensation strategies buffered the negative relationship between employee age and supervisor-rated work ability when employees' job autonomy was high but not when job autonomy was low (see also Ng & Feldman, 2015; Zacher & Frese, 2011). There are currently no other studies showing that the use of action regulation strategies and engagement in proactive behaviors moderate associations between employee age and important work

outcomes consistent with my definition of successful aging at work. There are studies demonstrating that proactive behaviors are associated with work outcomes such as occupational well-being within the group of older employees (e.g., Claes & Van Loo, 2011). However, because these studies do not test interactive effects of age and proactive behaviors on work outcomes, they cannot provide evidence (according to my definition) for the importance of proactive behaviors for successful aging at work.

Some indirect evidence for the potentially important role of proactive behaviors for successful aging at work comes from studies on interactive effects of age and proactive personality (i.e., the tendency to show proactive behaviors; Bateman & Crant, 1993) on work outcomes (see Zacher & Kooij, in press, for a review). For instance, Ng and Feldman (2012) investigated proactive personality and perceived supervisor undermining as moderators of the relationship between age and innovative performance. They found that the relationship was positive among employees experiencing low supervisor undermining as well as among employees with both high supervisor undermining and high levels of proactive personality. In contrast, the relationship was negative when supervisor undermining was high and proactive personality was low. Thus, proactive personality compensated for a negative effect of supervisor behavior on older employees' innovative performance. Another line of research showed that high levels of proactive personality buffered the generally negative relationship between older job seekers' age and their job search intensity (Zacher, 2013; Zacher & Bock, 2014). In other words, having a proactive personality was more important for the job search intensity of relatively older, compared to relatively younger, job seekers.

Neither Kooij's (2015) nor my article (Zacher, 2015) discussed in detail the distinction between action regulation strategies and proactive behaviors aimed at changing the self (e.g.,

goals, emotions; Heckhausen, 2000; Urry & Gross, 2010) and strategies and behaviors aimed at changing the environment (e.g., job characteristics; Frese, Garst, & Fay, 2007). However, this distinction has been emphasized in both the organizational (Bindl & Parker, 2011; Grant & Ashford, 2008; Moghimi, Scheibe, & Van Yperen, in press) and lifespan developmental literatures (Brandtstädter & Renner, 1990; Heckhausen & Schulz, 1995; Heckhausen, Wrosch, & Schulz, 2010; Schulz & Heckhausen, 1996). For instance, the motivational theory of lifespan development argues that individuals' use of primary control strategies (i.e., changing the environment according to individual needs) follows an inverted U-shape across the entire lifespan (from birth to death, with a peak in middle adulthood), whereas the use of secondary control strategies (i.e., changing the self to adapt to the environment) increases continuously across the lifespan (Heckhausen et al., 2010). In a recent study based on an integration of the motivational theory of lifespan development with the organizational psychology literature on stress and coping, Hertel, Rauschenbach, Thielgen, and Krumm (2015) showed that older employees used more active problem-solving coping strategies than young employees (consistent with a predicted increase in primary control strategy use from young to middle adulthood). In contrast to their hypothesis based on the motivational theory of lifespan development, there were no age differences with regard to the use of active emotion-focused coping strategies (secondary control strategies). Further integrative research on age and proactive behaviors aimed at changing oneself versus changing the work environment is clearly needed.

Person-environment fit perspective.

“Future research may benefit from conceptualizing moderators in research on successful aging at work using a dynamic person-environment fit perspective, which considers the congruence

and complementary nature of person and contextual moderators with age-related changes in person and work context factors... ” (Zacher, 2015, p. 18)

“In this article, I ... argued that a continuous person-job fit between the changing person and changing work is required for employees to be able to maintain their health, motivation, and work ability, and thus age successfully at work” (Kooij, 2015, p. 1)

Both perspectives on successful aging at work emphasize interactive effects of age-related person and contextual factors on work outcomes. Kooij (2015) assumed that person-job fit is a key predictor of effective resource management which, in turn, influences the maintenance of health, motivation, and work ability (Figure 1). In my theoretical framework, person and contextual moderators are assumed to influence, by themselves and in combination, relationships between age, age-related mediators, and work outcomes (Figure 3). Moreover, age-related person and contextual mediators are assumed to interact in influencing work outcomes. As highlighted in Figure 3, both of these instances of person-context interactions may include different levels of person-environment fit (e.g., person-job fit and person-organization fit). Person-job fit is a specific form of person-environment interactions that entails the congruence or match between corresponding person and work environment factors (e.g., employee abilities and job demands; Chatman, 1989; Edwards & Shipp, 2007). Thus, with person-job fit, Kooij (2015) proposed a more specific explanatory mechanism than my broader theoretical framework.

Kooij (2015) did not specify what kind of evidence is needed to demonstrate the importance of a continuous person-job fit for successful aging at work. According to my definition, person-job fit (or, more generally, the interactive combination of corresponding person and contextual moderators) would have to moderate relationships between employee age and work outcomes (with more variance explained among older compared to young employees)

to be considered a contributor to successful aging at work (Figure 3). For instance, employees with a continuously high person-job fit might experience increases in their level of work centrality across the working lifespan, whereas employees with a continuously low fit might experience progressively lower levels of work centrality across the working lifespan.

The other possible instance of person-environment interactions in my framework – interactive effects of age-related person and contextual mediators in predicting work outcomes (Figure 3) – does not constitute a necessary or sufficient requirement for successful aging at work. According to my definition, simple main effects of fit between age-related person and contextual variables on work outcomes do not constitute successful aging at work. Instead, interactive effects between age and person-environment fit on work outcomes, as described above, are necessary to provide evidence for successful aging at work. Researchers have recently begun to theoretically address interactions between age and person-environment fit (Feldman & Vogel, 2009; Hesketh, Griffin, Dawis, & Bayl-Smith, 2015; Perry, Dokko, & Golom, 2012; Truxillo, Cadiz, Rineer, Zaniboni, & Fraccaroli, 2012; Zacher, Feldman, & Schulz, 2014). So far, however, hardly any empirical evidence exists on this topic. An exception is a study by Krumm, Grube, and Hertel (2013), which found that older employees' job satisfaction was more negatively affected by the perceived misfit between personal needs and available job supplies than young employees' job satisfaction.

Work outcomes.

“Research on successful aging at work should focus on both subjective and objective outcomes that are relevant and important to employees and organizations, such as work motivation, job performance, turnover, job attitudes, and occupational health and well-being...” (Zacher, 2015, p. 9).

“In this article, I view successful aging from a sustainability perspective, as the maintenance of workers’ health, motivation, and working capacity or work ability now and in the future...”

(Kooij, 2015, p. 1).

I argued that criteria for successful aging at work should include important work outcomes that are valued by employees and organizations (Zacher, 2015). Kooij (2015) focused on the outcomes of health, motivation, and work ability. My conceptualization encompasses these outcomes but takes a broader perspective on criteria for successful aging at work. In my article, I emphasized that the work outcomes listed in Figure 3 are not exhaustive and that further subjective and objective outcomes, such as work ability (Ilmarinen & Ilmarinen, 2015; McGonagle, Fisher, Barnes-Farrell, & Grosch, 2015) could be added. I reviewed the available empirical evidence supporting my conceptualization of successful at work with regard to work motivation, job performance, turnover and job search behavior, job attitudes, and occupational health and well-being (Zacher, 2015). Moreover, I applied my definition of successful aging at work to the association between age and work ability (Costa & Sartori, 2007; Weigl et al., 2013).

Developmental trajectories.

“Life span scholars have argued for several decades that research on successful aging should take a developmental perspective and examine the impact of individual differences and contextual characteristics on both the level and rate of age-related changes over time...”

(Zacher, 2015, p. 7).

“From a psychological perspective sustainability refers to managing resources within individuals over time (i.e., using current personal resources without compromising future use and development of resources)” (Kooij, 2015, p. 2)

Both Kooij's (2015) and my perspectives on successful aging at work are generally consistent with the recommendation by lifespan psychologists that research on successful aging should take a developmental approach (Ryff, 1982). Kooij (2015) emphasized the achievement of a continuous person-job fit and the effective management of resources within individuals over time ("now and in the future"). My definition of successful aging at work is primarily based on the notion of differential preservation (Salthouse, 2006), that is, progressive deviations from the average age-related trajectory of a work outcome over time and across the working lifespan. In other words, to claim evidence for successful aging at work, a significant interaction effect between employee age and person and contextual moderators in predicting work outcomes is required (cf. Salthouse, 2006). As illustrated in Figure 2, my definition suggests that employees who are aging successfully can follow trajectories of age-related growth (Panels A and B) and maintenance (Panel C) of a work outcome over time (Zacher, 2015). Moreover, employees who experience decline in a work outcome over time can also age successfully at work according to my definition, as long as their intraindividual trajectory is less steep (i.e., deviates positively over time) than the average age-related trajectory.

Critical Analysis of Kooij's (2015) Conceptualization

The Importance of a Precise Definition of Successful Aging at Work

Sustainability concept. For more than two decades, the expression "successful aging at work" had been a fuzzy concept in research and a buzzword in organizational practice, and I argued that we need a more precise definition and theoretical framework to gain a better understanding of the concept's meaning, assumptions, and underlying processes (Zacher, 2015). I am not convinced that it is useful to apply another still very vague and ambiguous concept – sustainability – to better understand successful aging at work. As described by De Lange, Kooij,

and Van der Heijden (2015), sustainability at work has been defined in various ways. For instance, sustainability has been characterized as the impact of organizational activities on employees' health and well-being; as the ability to create, test, and maintain adaptive capacity; and as decent (e.g., fair, secure, participative, etc.) work. Moreover, De Lange et al. (2015) noted that, in empirical studies, "sustainability at work is most often defined as work ability" (p. 56), and that a "systematic and multilevel approach to work ability ... is consistent with the proposed multidimensional concept of sustainability at work, and we therefore recommend that researchers include measures such as the validated work ability index when seeking to assess sustainability at work" (p. 57). Finally, according to De Lange et al. (2015), "sustainability at work involves ... the maintenance of workers' health, motivation, and working capacity or their ability to work within their current or other organization, now and in the future" (p. 57) – thus, their definition of sustainability (or work ability) is identical to Kooij's (2015) definition of successful aging at work, raising concerns about conceptual confounding (Martinko, Harvey, & Mackey, 2014).

Reflecting the theoretical fuzziness and ambiguity in the literature, the concept of sustainability is inconsistently defined in Kooij's (2015) article. First, the article suggested that "worker attitudes and behaviors can be considered sustainable 'if their (future) needs, abilities, and interests are congruent with aspects and (future) requirements of their current and future work environment'" (De Lange et al., 2015, p. 57; Kooij, 2015, p. 1). According to this definition, sustainability is the same as, or closely related to, person-environment fit. Second, Kooij (2015) described sustainability as a within-person process that involves the management of resources (e.g., time, energy, or social relations), such that the use of current personal resources does not compromise the future use and development of resources. By contrast, in the chapter by Kooij and colleagues, sustainability in the context of successful aging at work is characterized as

a between-person “process of preservation, as well as regeneration of resources, stating that no generation (e.g., the group of older workers) is allowed to consume all (e.g., job-related) resources at the cost of other generations (e.g., younger workers)” (De Lange et al., 2015, p. 54).

It remained unclear how a central aspect of the original sustainability concept – the fulfillment of own needs and the use of current resources without compromising (others’) future fulfillment of needs and use and development of resources (De Lange et al., 2015) – can be applied to the concept of successful aging at work, even if adopting a within-person perspective. For instance, Kooij (2015) suggested that sustainability involves “optimally utilizing current strengths and abilities without overtaxing and thus exhausting abilities” (p. 2). The article did not explain how employees’ current use (or expression) of their knowledge, skills, abilities, and personality characteristics (e.g., solving a cognitively challenging work problem) can exhaust the use and development of these characteristics several years or decades later in their work lives. In contrast, applying the notion of human sustainability to employees’ energy management – with energy as a limited resource – across much shorter time periods (e.g., hours) seems more appropriate (Fritz, Lam, & Spreitzer, 2011; Pfeffer, 2010).

In addition to the definitional problems, it remained unclear why sustainability, defined as effective resource management, should mediate the link between person-job fit and the maintenance of health, motivation, and work ability according to Kooij’s (2015) perspective. Kooij (2015) argued that “improving current and future fit means that employees fulfill present needs and optimally use current skills and knowledge without compromising the fulfillment and use of future needs, skills and knowledge” (p. 1). It was not clear to me why person-job fit should lead to sustainability (or effective resource management), and why sustainability, in turn, should influence successful aging at work. In sum, I contend that meshing the fuzzy notion of

“sustainability at work” with the concept of successful aging at work does contribute to a better understanding of the latter.

Time frame and differential preservation. While Kooij’s (2015) approach has developmental elements, the time frame assumed in the definition of successful aging at work is rather unspecific. It remained unclear whether expressions such as “now and in the future” (p. 1) and “over time” (p. 2) imply a temporal perspective on the entire working lifespan or whether employees, according to Kooij’s (2015) definition, could also age successfully at work across shorter time frames, such as a few weeks, months, or years. A related concern with Kooij’s (2015) conceptualization is the absence of a requirement for Age \times Person/Contextual Moderator interactions (i.e., differential preservation; Salthouse, 2006). This is problematic because it may suggest that employees with high levels of person-job fit or effective resource management can be considered as aging successfully at work at a single point in time, or across relatively short time periods, independent of their age. In contrast, I argue that a developmental perspective on successful aging at work requires the examination of longer-term trajectories across employees’ working lifespans and a pattern of differential preservation (Zacher, 2015).

The Importance of a Comprehensive Model of Successful Aging at Work

I agree that it is generally important to investigate proactive behaviors, person-job fit, and the outcomes of health, motivation, and work ability in research on successful aging at work. In the following, I explain why a comprehensive model of successful aging at work should also include other person and contextual factors, take other forms and levels of person-environment fit into account, and examine additional work outcomes.

Person and contextual factors. Kooij (2015) argued that the literature on aging at work has largely viewed older employees as passive and instead focused on contextual influences such

as job characteristics. The article proposed an alternative perspective that emphasizes employees' proactive behaviors as key predictors of successful aging at work and does not specifically consider other person and contextual factors. Successful aging at work is likely determined by multiple influences, including both person and contextual factors and their interactions. Thus, a comprehensive model of successful aging at work should allow for interactions between proactive behaviors, other person factors, and contextual factors. Employees are not acting in a vacuum, but orient themselves in, monitor, and process feedback from their work environment (Frese & Zapf, 1994; Hacker, 2003; Zacher & Frese, in press). Moreover, the lifespan developmental literature and research on work and aging have demonstrated that the effectiveness of action regulation strategies such as selection, optimization, and compensation depends not only on the availability of other personal resources (e.g., cognitive, health, and social resources; Jopp & Smith, 2006), but also on age and contextual characteristics (e.g., job complexity and control; Truxillo et al., 2012; Weigl et al., 2013; Yeung & Fung, 2009; Zacher & Frese, 2011). According to Baltes and Baltes (1990), the use of action regulation strategies helps individuals invest their limited resources in an optimal way, and the strategies should be particularly effective when demands are high and resources are low.

Forms and levels of person-environment fit. Kooij (2015) further emphasized the role of person-job fit for successful aging at work. The fit between employees and their work environment can take multiple “forms” (e.g., perceived versus objective fit, complementary versus supplementary fit) and occur on multiple “levels” (Edwards & Shipp, 2007), including their supervisor, work group, organization, and vocation, which may also influence successful aging at work (Feldman & Vogel, 2009; Perry et al., 2012; Zacher et al., 2014). Moreover, the importance of different forms and levels of fit for work outcomes may change across the

working lifespan. For instance, Zacher et al. (2014) proposed that age interacts with person-group fit in influencing occupational well-being, such that older employees benefit more from a high person-group fit than young employees. The most relevant form and level of person-environment fit for successful aging at work likely depends on the specific behavioral predictors and work outcomes of fit. For instance, proactive strategic behaviors (cf. Parker & Collins, 2010) may have a stronger influence on person-organization fit among older compared to young employees. Person-organization fit, in turn, should influence outcomes such as organizational commitment and citizenship behavior.

Work outcomes. Kooij's (2015) perspective focuses on the three outcomes of health, motivation, and work ability. I argue that other subjective (e.g., job attitudes) and objective outcomes (e.g., productivity) should also be considered as criteria in a comprehensive model of successful aging at work. Moreover, the broad concept of health includes physical, psychological, and social well-being (Segel-Karpas, 2015; Zacher et al., 2014), and work motivation encompasses the motivation at work (e.g., work engagement), motivation to work (e.g., work centrality), and the motivation to work after retirement (Kanfer, Beier, & Ackerman, 2013). Particularly the latter appears to be an age-sensitive criterion (Bal, De Jong, Jansen, & Bakker, 2012; Beehr & Bennett, 2015; Kalokerinos, Von Hippel, & Henry, 2015).

The Importance of a Critical Discussion of Successful Aging at Work

Successful aging continues to be a controversial topic in the gerontology and lifespan developmental literatures (e.g., Freund, 2008; Kahn, 2003; Katz & Calasanti, 2015; Martin et al., 2015). A more critical discussion of the concept would also benefit the work and aging literature. To initiate such a debate, I discuss Kooij's (2015) focus on maintenance, the emphasis on

achieving a continuous person-job fit, and the potential consequences of one-sided attention to older employees' individual choice, responsibility, and self-reliance.

Successful aging at work as maintenance. A key difference between Kooij's (2015) and my perspectives concerns Kooij's (2015) conceptualization of successful aging as *maintenance*. According to Kooij and colleagues, maintenance is defined as "maintaining current levels of functioning in the face of new challenges" (De Lange et al., 2015, p. 64). In contrast, my definition suggests that employees following various age-related trajectories of a work outcome (i.e., growth, maintenance, and decline) can age successfully at work as long as they deviate positively from the average age-related trajectory (Zacher, 2015). As shown in Figure 2, Kooij's (2015) and my definition of successful aging at work only overlap in Panel C, when an employee follows a trajectory of maintenance compared to average age-related decline in a work outcome.

In contrast, Panel A illustrates a situation in which I conceptualize successful aging at work as growth and usual aging at work as maintenance, whereas Kooij's (2015) definition implies that the maintenance trajectory constitutes successful aging at work. Similarly, in Panel B, I conceptualize successful aging at work as growth and unsuccessful aging at work as maintenance, whereas the maintenance trajectory constitutes successful aging at work according to Kooij's (2015) definition. Finally, Kooij's (2015) perspective on successful aging at work can be applied to the maintenance trajectory depicted in Panel F, whereas the trajectories in this panel are not consistent with my conceptualization of successful aging at work as progressively greater deviations of individual trajectories from the average age-related trajectory over time (i.e., greater heterogeneity among older compared to young employees).

From my theoretical perspective, Kooij's (2015) conceptualization of successful aging at work as maintenance implies that the average age-related trajectory for work outcomes is

decline. Kooij (2015) proposed that employees have to maintain their previous levels of health, motivation, and work ability over time to age successfully. From my perspective, this definition suggests that these outcomes decline with age among the remaining employees who follow patterns of usual and unsuccessful aging at work. Empirical evidence for general, average age-related declines in these work outcomes across the working lifespan is weak (for health, see Ng & Feldman, 2013a) or mixed, depending on the specific conceptualization and study setting (for motivation and work ability, see Kooij, De Lange, Jansen, Kanfer, & Dikkers, 2011; McGonagle et al., 2015; Stamov Roßnagel, 2009).

Research based on cross-sectional designs suggests that aging is associated with some declines in functioning that are relevant for the work context (Ng & Feldman, 2013b). However, longitudinal studies typically find weaker declines in physical and cognitive functioning than cross-sectional studies, particularly when only middle-aged employees (i.e., 40-65 years) and the “young-old” group (i.e., 65-74 years) are considered (Baltes & Smith, 2003; Hertel & Zacher, in press; Schaie, 1994). Moreover, modern workplaces and individual resources can compensate for age-related declines in physical and cognitive functioning, such that their impact on work performance is diminished (Kanfer & Ackerman, 2004; Salthouse, 2012). In sum, from my theoretical perspective, Kooij’s (2015) definition of successful aging at work seems to miss an important aspect of the multidirectional aging process: growth, or age-related gains in functioning (Baltes, 1987). When viewed from my perspective, Kooij’s (2015) conceptualization appears to be a rather pessimistic perspective on aging at work, suggesting that age-related declines and losses are the norm, whereas the mere maintenance of health, motivation, and work ability should be considered a success of older employees.

Successful aging at work as dependent on continuous person-job fit. Kooij (2015) emphasized the importance of maintaining a “continuous” fit between age-related changes in employee characteristics and changes in the work environment (by engaging in proactive behaviors). This perspective seems to neglect the potentially important benefits for individuals experiencing a (temporary) misfit with their work environment and subsequently engaging in adaptive efforts to restore fit (Hesketh et al., 2015). Instead of proactively preventing any occurrence of person-job misfit, employees may experience personal and professional satisfaction and growth after successfully adapting to changes in their work environment, learning from errors, and dealing with experienced misfit (Bussing, Bissels, Fuchs, & Perrari, 1999; Frese & Keith, 2015; Staudinger, 1999). Proactivity and adaptability are related but distinct constructs: whereas proactivity involves actively initiating changes in the self and the work environment (i.e., it is not necessary that a prior change in the self or the environment occurred), adaptability helps individuals deal with (or effectively react to) changes in personal resources and the work environment (Berg, Wrzesniewski, & Dutton, 2010; Zhu, Frese, & Li, 2014). Future theory development and research on successful aging at work should consider that for certain employee outcomes, such as personal growth, learning, and development, adapting to changes may be more beneficial than proactively preventing any occurrence of person-job misfit.

Successful aging at work as individual responsibility.

“To succeed in something requires more than falling into it; it means having desired it, planned it, worked for it. All these factors are critical to our view of aging which, even in this era of human genetics, we regard as largely under the control of the individual. In short, successful aging is dependent upon individual choices and behaviors. It can be attained through individual choice and effort.” (Rowe & Kahn, 1998, p. 37)

“Where successful aging research conceives of health advantages and disadvantages as the results of individual responsibility..., it fails to acknowledge social relations of power, environmental determinants of health, and the biopolitics of health inequalities. Indeed, lifestyle and individual volition fit a contemporary consumerist, neoliberal, and entrepreneurial style of thought that dominates health and retirement politics.” (Katz & Calasanti, 2015, p. 4)

Kooij’s (2015) perspective on successful aging at work emphasizes the importance of an active role of employees, including personal choice, responsibility, and self-reliance (see also De Lange et al., 2015). In contrast, this perspective does not specifically consider other person and contextual factors that may also impact on successful aging at work, as well as potential contingencies that may strengthen or weaken the influence of proactive behaviors. In this regard, this perspective is similar to Rowe and Kahn’s (1987, 1998) emphasis on the importance of individuals’ behaviors and lifestyles for successful aging (which they defined as low probability of disease and disability, maintenance of high physical and cognitive functioning, and continued engagement in social and productive activities). Critical gerontologists have argued that Rowe and Kahn’s (1987) conceptualization, and the notion of successful aging more generally, can be considered problematic in several ways (see Dillaway & Byrnes, 2009, for an analysis of the sociopolitical and cultural contexts as well as economic motivations that led to the development and widespread use of the term successful aging over the past decades).

First, critical gerontologists have argued that a strong and one-sided emphasis on individuals’ active role, choices, and personal responsibility may suggest that individuals have high levels of control over outcomes such as physical health, and that such a perspective is consistent with neoliberal politics of minimizing public support (Dillaway & Byrnes, 2009; Rozanova, 2010). They further argued that models of successful aging that assume that older

adults who experience health declines could have prevented these declines, to a great extent, by making the right choices and investing effort, may have consequences for how these older adults are treated by colleagues, medical practitioners, and policy makers (Katz & Calasanti, 2015). Some critical gerontologists even cautioned that a strong and one-sided focus on the active role of individuals and personal responsibility for successful aging may actually turn out to be a means of blaming the less fortunate, and could lead to the marginalization, exclusion, and stigmatization of people with physical and cognitive disabilities, to depriving vulnerable people of social benefits and age-based welfare entitlements, and to weakened norms of social solidarity (Moody, 2001).

Second, critical gerontologists have argued that models assuming an active role and individual responsibility for successful aging may neglect that choices and lifestyle behaviors are associated with resources closely linked to social class, structural inequalities, and cumulative advantages and disadvantages (Katz & Calasanti, 2015; Rozanova, 2010). Thus, from this perspective, successful aging may be seen as an exclusionary concept, because the experience of success would be restricted to relatively few privileged members of society. Dillaway and Byrnes (2009) cautioned that it can be highly problematic if those who have the material and social resources to age successfully are used to suggest that, in principle, everyone is able to maintain high levels of health and productivity, if they only make the right lifestyle choices, invest effort, and show responsibility. A potential downside of such neoliberal thinking is that it may be assumed that those individuals who are not aging successfully do not deserve public support because they were not active enough and did not invest enough effort.

Finally, with its emphasis on individual responsibility for success and failure, Rowe and Kahn's (1987) notion of successful aging may suggest that all experiences of ill-health,

disability, lack of productivity, and dependence on others should be considered failures in living well (Lamb, 2014). Critical gerontologists have argued that the dichotomy of success versus failure that is part of the many approaches to successful aging does not adequately capture the diversity and deeper meaning of the aging experience (Katz & Calasanti, 2015). Moreover, it has been suggested that the concept may backfire and discriminate against older adults because it may lead them to “define normal aging processes more negatively than they might have without the influence of successful aging discourse...” (Dillaway & Byrnes, 2009, p. 7)

In sum, Katz and Calasanti (2015) pointed out that the concept of successful aging was initially introduced and popularized to challenge age discriminatory notions of universal age-related decline and to take a more positive perspective on the aging process, especially with regard to older adults’ work ability (Butler & Gleason, 1985; Havighurst, 1961; Rowe & Kahn, 1987). However, critical gerontologists have argued that there may be several problems with the view that “everyone is the architect of their own successful aging.” Similar to Rowe and Kahn’s (1987) conceptualization, Kooij’s (2015) perspective emphasizes the importance of an active role of employees (while not specifically considering other person and contextual factors and contingencies) and may therefore be misinterpreted and perceived as ideological by some critics. For instance, some organizational practitioners may assume that those employees who experience age-related declines in health, motivation, and work ability are, to a great extent, personally responsible for these developments, as they did not engage sufficiently in proactive behaviors such as job crafting. However, in many jobs, and particularly in those jobs that would benefit most from positive changes (i.e., job with high physical demands and low autonomy), “adjusting or realigning the job to what individuals would like and still can do” (Kooij, 2015, p. 2) may simply not be possible.

A comprehensive model of successful aging at work should therefore not only include proactive behaviors, but also other person and contextual factors as predictors, as well as boundary conditions of the age-differential effects of proactive behaviors on work outcomes. My perspective does not assign responsibility for successful aging at work primarily to the individual employee (yet they also do not preclude an active role of employees), considers multiple (subjective and objective) criteria of success, and provides a broad explanatory framework for successful aging at work (Zacher, 2015). It allows investigating how those employees who are not able or willing to engage in proactive behaviors and those who show age-related declines in health, motivation, and work ability can be supported (e.g., through organizational interventions; in this regard, see also Kooij's, 2015, discussion of how organizations could stimulate proactive behaviors). In conclusion, I believe that the literature on successful aging at work would benefit from a more critical discussion, including reflections on the intended and unintended consequences of definitions and theoretical models of successful aging for older employees.

Proactive Behaviors for Successful Aging at Work

Kooij's (2015) article aimed to connect the lifespan developmental literature on successful aging with the organizational psychology literature on proactivity, and made several suggestions on how different proactivity constructs could be sorted into categories based on successful aging strategies. Some of the most widely researched proactivity constructs in the organizational literature, including personal initiative, taking charge, and expressing voice (Tornau & Frese, 2013), are missing from Kooij's (2015) list, even though they might also contribute to an improved person-environment fit. I have two more important comments. First, the integration of lifespan and proactivity concepts is a challenging theoretical exercise. In Table 2, the examples provided by Kooij (2015) are sorted based on different targets of proactive

behavior, that is, task, career, social relationships, and self (cf. Zacher & Frese, in press). This reorganization of Kooij's (2015) examples highlights a conceptual challenge: several proactive behaviors are associated with multiple successful aging strategies (Table 2). For instance, utilization crafting is associated with optimization, shifting of goal focus (which itself is very similar to selection), and emotion regulation. Proactive career planning behavior is associated with selection, shifting goal focus, and preventive proactive behavior. Relational job crafting is listed for compensation and corrective proactive behaviors as well as preventive proactive behaviors.

In light of this conceptual challenge, I agree with Kooij (2015) that "Future research should ... further specify the proactive behaviors for successful aging at work" (p. 8). Future research could use a broader theoretical framework that can facilitate the integration of action regulation strategies and proactive behaviors proposed in the lifespan and organizational psychology literatures. Action regulation theory (Frese & Zapf, 1994) may provide such a framework. This meta-theory has been used by lifespan psychologists to develop action regulation strategies (Brandtstädter, 1999; Freund & Baltes, 2000; Heckhausen, 2000) and by organizational psychologists to study diverse topics such as proactive behavior, entrepreneurship, job design, career development, and successful aging (Frese, 2009; Hacker, 2003; Raabe, Frese, & Beehr, 2007; Zacher & Frese, in press). The theory describes how action, defined as goal-directed behavior, is regulated across multiple phases over time (e.g., goal development, planning, feedback) and across multiple hierarchical levels (e.g., level of flexible action patterns, level of meta-cognitive heuristics).

My second comment is that Kooij's (2015) "proactive behaviors for successful aging at work" (see Table 2) do not necessarily constitute proactive behaviors that facilitate successful

aging at work according to my definition (Zacher, 2015). So far, there is no empirical evidence that the behaviors listed in Table 2, such as accommodative and utilization crafting, interact with age in predicting important work outcomes and explain more variance among older compared to young employees. I suggest that strategies that predict work outcomes in any age group are not called strategies or proactive behaviors for successful aging because they do not have age-differential effects (differential preservation; cf. Salthouse, 2006; Zacher, 2015).

Similar to Kooij (2015), Robson and Hansson (2007) proposed a set of seven “strategies used by employees to age successfully in the workplace” (p. 331), including relationship development, security, continuous learning, stress relief, skill extension, career management, and conscientiousness. While Robson and Hansson (2007) found that all seven strategies were positively related to perceived success at work, only two strategies (relationship development and skill extension) interacted with employee age in predicting perceived success. Curiously, the relationships between these strategies and perceived success were *weaker* among older employees. Thus, none of the strategies identified by Robson and Hansson (2007) can be considered strategies for successful aging at work according to my perspective. In a similar vein, until there are theoretical arguments and empirical evidence that the proactive behaviors listed in Table 2 interact with age in predicting important work outcomes, I suggest that they are not labelled strategies or proactive behaviors for successful aging at work. According to Kooij (2015), continuous improvements in person-job fit are essential to age successfully at work, because older employees are more heterogeneous and are more likely to experience person-job misfit than young employees. Future research on proactive strategies and behaviors for successful aging at work needs to explain theoretically why certain strategies and behaviors are more useful with increasing age (or among older compared to young employees) than other

strategies and behaviors in terms of predicting favorable work outcomes, and demonstrate such age-differential effects empirically.

Conclusion

Research on age and work has grown exponentially over the past decade, and there is now a solid evidence base for supporting and managing the aging workforce (Earl & Taylor, 2015; Hertel & Zacher, in press; Truxillo, Cadiz, & Hammer, 2015). I agree with Kooij (2015) that there is not enough research on the role of proactive behaviors and person-environment fit for successful aging at work, and her article makes an important contribution to this area of research. Future research and effective practice in this area should be guided by a precise definition and comprehensive model of successful aging at work. A precise definition should explicate the role of Age \times Person/Contextual Moderator interactions in predicting work outcomes. A comprehensive model should focus on person and contextual predictors (as well as their interactions) and outline potential boundary conditions of the age-differential effects of proactive behaviors on work outcomes.

I have further suggested in this article that a definition and model of successful aging at work should not only focus on age-related maintenance and continuous person-environment fit, but should also allow for age-related improvements and adaptation to experiences of person-environment misfit. Moreover, researchers should consider various forms and levels of person-environment fit and work outcomes in addition to health, motivation, and work ability. According to my definition, proactive behaviors must have age-differential effects on work outcomes to be considered successful aging strategies, with stronger effects among older compared to young employees. Finally, I hope that more researchers from multiple disciplines will continue a critical discussion of the important concept of successful aging at work.

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Figure 1

Central Elements of Kooij's (2015) Perspective on Sustainable and Successful Aging at Work

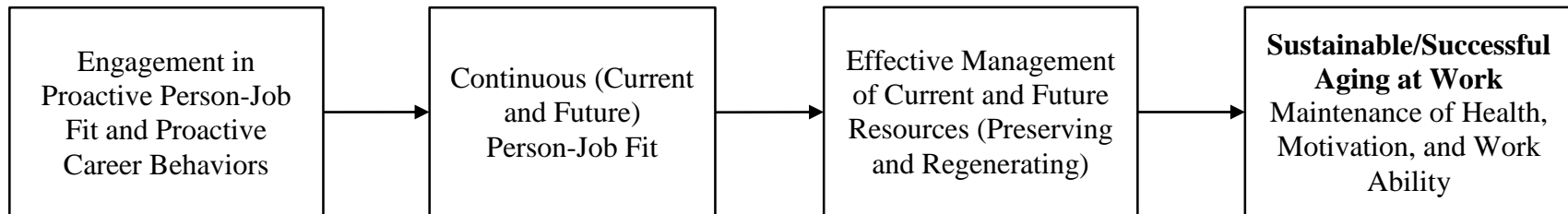


Figure 2

Schematic illustrations of Zacher's (2015) definition of successful, usual, and unsuccessful aging at work (Panels A, B, and C) and age-related developments that neither represent successful nor unsuccessful aging at work (Panels D, E, and F). Solid lines represent age-related trajectories at high levels of a moderator variable, dotted lines represent average age-related trajectories, and dashed lines represent age-related trajectories at low levels of a moderator variable.

Trajectories with an asterisk () constitute successful aging at work according to Zacher's (2015) definition, and trajectories with a dagger (†) constitute sustainable/successful aging at work according to Kooij's (2015) definition.*

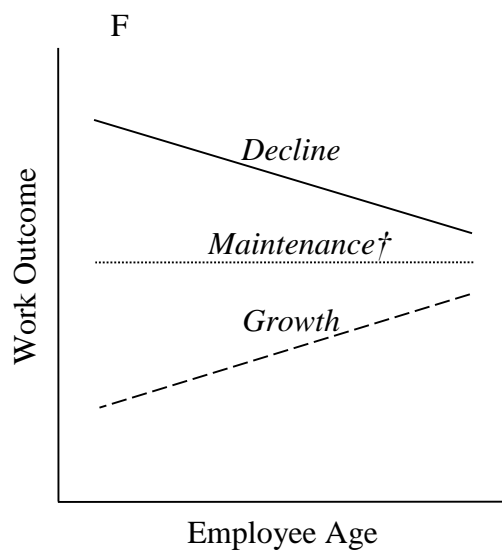
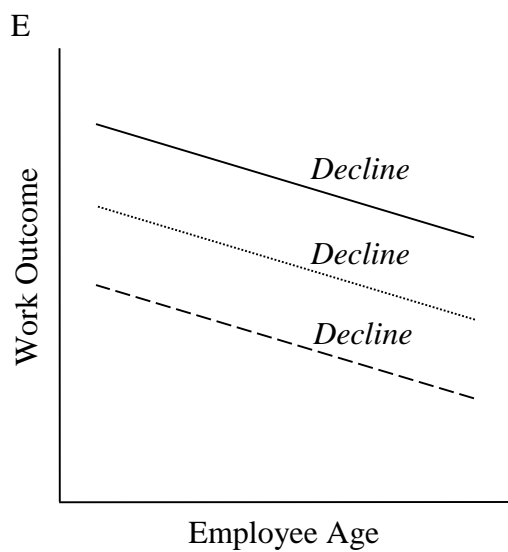
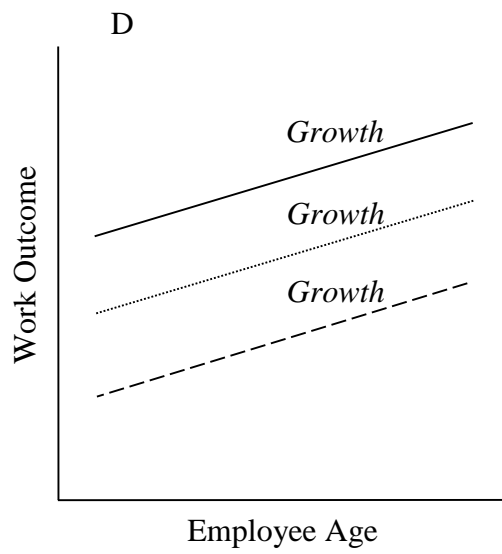
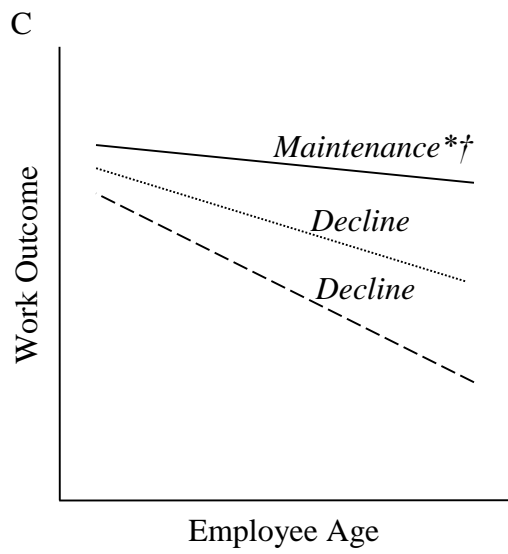
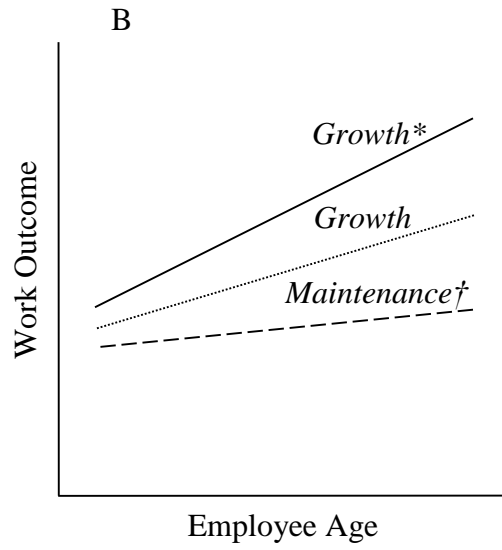
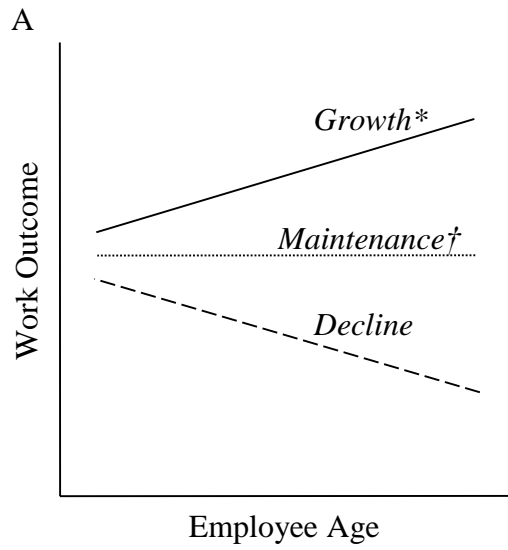


Figure 3

Zacher's (2015) Theoretical Framework of Successful Aging at Work

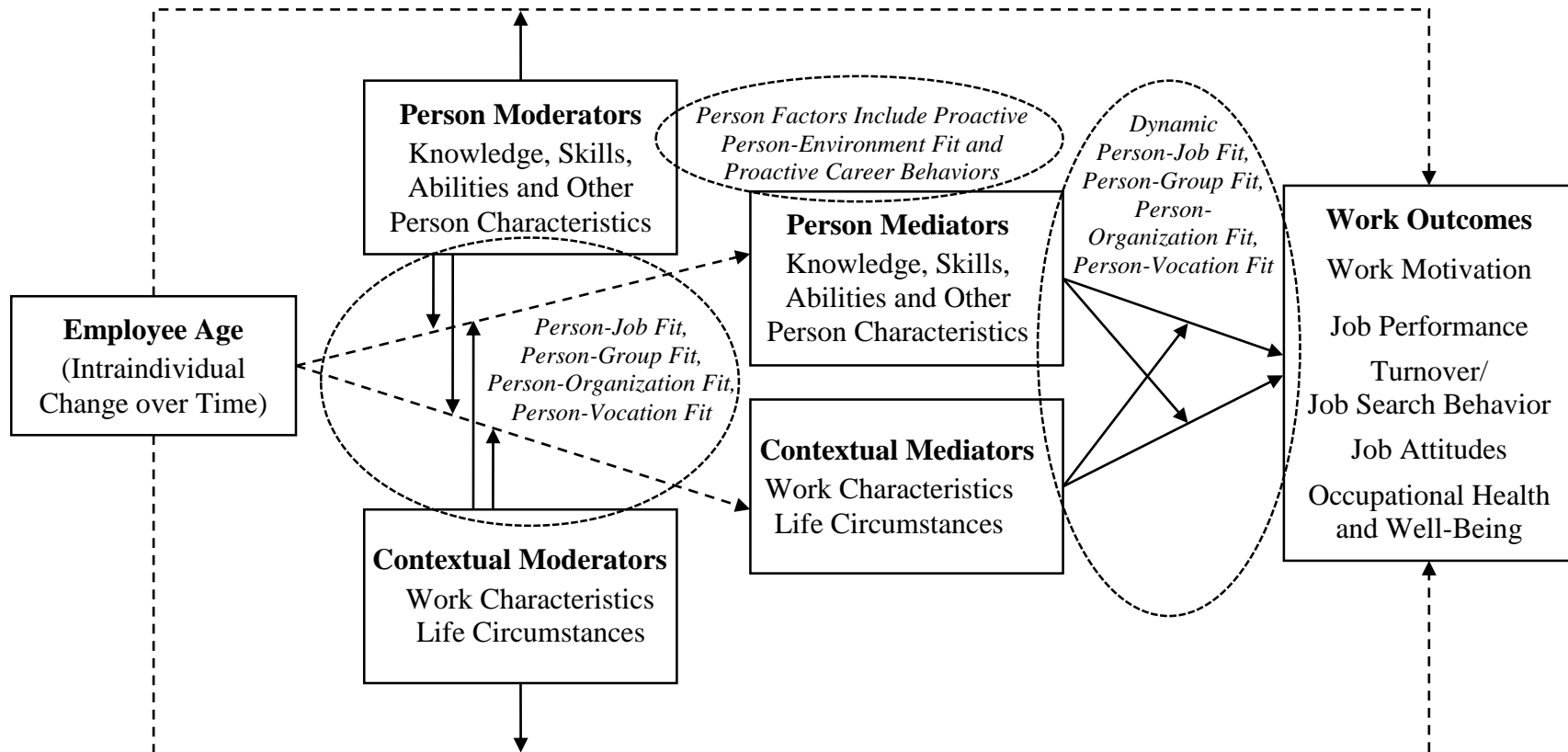


Table 1

Definitions, Theoretical Backgrounds, and Central Elements of Zacher's (2015) and Kooij's (2015) Perspectives on Successful Aging at Work

	Zacher (2015)	Kooij (2015)
<i>Definition</i>	Employees are aging successfully at work if they deviate in increasingly positive ways from average developmental trajectories of favorable subjective and objective work outcomes across the working lifespan.	Employees are aging successfully at work if they maintain their health, motivation, and working capacity or work ability now and in the future.
<i>Theoretical background</i>	Gerontology and lifespan developmental theories.	Sustainability, person-job fit, and proactivity theories.
<i>Criteria for successful aging at work</i>	Subjective and objective work outcomes that are valued by employees and organizations.	Health, motivation, and work ability.
<i>Explanatory mechanisms</i>	Age-related changes in person and contextual factors, as well as their interactions.	Continuous (current and future) person-job fit and effective management of resources.
<i>Facilitating and constraining factors</i>	Person and contextual factors moderate the direct and indirect associations of age with work outcomes.	Engagement in proactive person-job fit and proactive career behaviors.
<i>Temporal patterns</i>	Differential preservation (Salthouse, 2006), including growth, maintenance, and decline.	Maintenance.

Table 2

Summary of “Proactive Behaviors for Successful Aging at Work” Based on Kooij’s (2015) Review and Examples

<i>Target of Proactive Behavior</i>	Selection (Setting/ selecting goals)	Optimization (Acquiring and investing in goal- relevant means)	Compensation (for unavailable goal- relevant means) / Corrective Proactive Behaviors (Actively dealing with stressors)	Shift Goal Focus (e.g., from growth to maintenance and regulation of loss)	Emotion Regulation (Controlling the type, extent, and timing of emotions)	Primary Control Strategies (Changing the environment according to individual needs)	Secondary Control Strategies (Changing the self to adapt to the environment)	Preventive Proactive Behaviors (Anticipating future stressors to delay or minimize them)
<i>Task</i>	<ul style="list-style-type: none"> • Task crafting (e.g., accommodative crafting) • Negotiating task I-deals (e.g., to change tasks) 	<ul style="list-style-type: none"> • Utilization crafting (e.g., taking on tasks that activate unused skills and knowledge) • Feedback seeking behavior (inquiry and monitoring) 	<ul style="list-style-type: none"> • Accommodative crafting (e.g., using tools or aids to do the job) 	<ul style="list-style-type: none"> • Role innovation • Utilization crafting (e.g., looking for tasks that match one’s interests) 	<ul style="list-style-type: none"> • Task crafting (e.g., decreasing hindering demands to avoid negative situations) • Utilization crafting (e.g., taking on tasks through which one can build meaningful relationships) 			
<i>Career</i>	<ul style="list-style-type: none"> • Proactive career planning behavior (e.g., setting clearer career goals) • Job change (e.g., to reduce workload) 	<ul style="list-style-type: none"> • Proactive skill development behavior (e.g., developing skills needed in future positions) • Negotiating development I-deals (e.g., special trainings) 		<ul style="list-style-type: none"> • Proactive career planning behavior • Increasing job mobility preparedness • Boundary management • Negotiating flexibility I-deals (e.g., to be able to spend more time on leisure activities) 		<ul style="list-style-type: none"> • Visibility and influence behaviors (creating opportunities, extending work involvement, and self-nomination/self-presentation) 		<ul style="list-style-type: none"> • Proactive career planning behavior • Ingratiation, networking, and seeking career guidance
<i>Social</i>			<ul style="list-style-type: none"> • Relational job crafting (e.g., improving relationships with others) • Defeating stereotypes of older workers • Engaging in older worker advocacy 					<ul style="list-style-type: none"> • Relational job crafting (e.g., increasing social resources)
<i>Self</i>					<ul style="list-style-type: none"> • (Cognitive) coping skills 	<ul style="list-style-type: none"> • Maintaining a positive mindset and persistence 	<ul style="list-style-type: none"> • Cognitive job crafting (e.g., changing the meaning of work) 	